PLACENTA PRAEVIA*

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THE purpose of this paper is not to discuss the diagnosis and treatment of placenta praevia, but to analyze statistically the cases that were treated during the years 1925 to 1934 at the Los Angeles County Hospital.

During this period there were 26,404 obstetrical cases admitted to the hospital, of which 266 cases were placenta praevias. Since, in didactic works on obstetrics, the importance of vaginal bleeding during pregnancy is stressed, and the importance of correct diagnosis and immediate treatment emphasized, we will try not to burden you with a repetition of these well-known facts.

TIME PERIODS INCLUDED IN THE ANALYSIS

For purposes of analysis and comparison, the period between 1925 and 1934 has been divided into two—one from 1925 to 1929, and the other from 1929 to 1934. During the first period there are seventy-two cases of placenta praevia on record, and during the second period 194 cases are recorded. Of the seventy-two cases occurring during the period between 1925 and 1929, only seven cases gave a history of pain associated with the bleeding. There were eleven marginal placenta praevias, ten partial or lateral, twenty-eight central or total, one cervical, and twenty-two cases diagnosed by history alone, type not determined.

TREATMENT METHODS

The treatment in each case depended on the general condition of the patient on admission, the condition of the cervix, bag of waters, the condition and position of fetus, and the type of placenta praevia.

The choice of delivery in these cases: Spontaneous delivery, five; Braxton Hicks version and extraction, nine; version and extraction, eighteen; insertion of bag, eighteen; and cesarean section, twenty-one.

MATERNAL MORTALITY

The maternal mortality for these cases was 6.9 per cent, and a gross infant mortality of 55 per cent. This seems rather high, and we believe can be accounted for by the small number of cases recorded, which were very likely of the most severe type, while those of favorable termination may have slipped by without being recorded as placenta praevia.

Maternal deaths occurred in one case of version and extraction, cause of death being rupture of uterus diagnosed and confirmed at laparotomy; one case of Braxton Hicks version and extraction; one case of version and extraction; one where the patient died of surgical shock after cesarean section, while one died undelivered.

ETIOLOGIC FINDINGS

The most constant etiologic finding in these cases is that it occurs most frequently in multipara. Fifty-two cases occurred in women having had anywhere from two to twelve pregnancies, and only twenty were pregnant for the first time. The second period studied shows a very similar relationship between parity and placenta praevia.

INTERPRETATION OF THE CHARTS

The accompanying charts will serve to illustrate results of the various methods of treatment for the different types of placenta praevia.

From 1929 to 1934 the charts are more complete and more accurate, showing a total of 194 cases of placenta praevia. These cases, as can readily be seen in the accompanying charts, were treated as follows: 47 delivered spontaneously, 11 by Braxton Hicks version and extraction, 23 by version and extraction, 40 by insertion of a

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CHART 1.—*Analysis of Cases of Placenta Praevia: Period 1925-1929*

Types of Placenta Praevia	No. of Cases	How Delivered: Spontaneous Delivery	Braxton Hicks Version and Extraction	Version and Extraction	Bag Insertion	Cesarean Section	Maternal Deaths	Infant Deaths
Marginal	11	1	3	..	5	2	2	6
Partial or lateral	10	..	2	7	..	1	..	5
Central or total	28	..	2	4	8	14	1	18
Cervical	1	..	..	1	..	..	..	....
Not diagnosed as to type	22	4	2	7	5	4	2	11
Total number of cases	72	5	9	19	18	21	..	....
Maternal deaths	....	..	1	2	....	1	4	....
Infant deaths	....	..	9	14	12	5	..	40

One patient died undelivered.

CHART 2.—*Analysis of Cases of Placenta Praevia: Period 1929-1934*

Types of Placenta Praevia	No. of Cases	How Delivered									Maternal Deaths	Infant Deaths
		Spontaneous Delivery	Braxton Hicks Version	Version and Extraction	Bag Insertion	Cesarean Section	Rupture of Membranes	Forceps	Packing	Hysterectomy		
Marginal	94	29	..	12	27	10	10	2	4	..	1	33
Partial or lateral	25	5	3	3	5	6	1	1	..	1	..	5
Central or total	38	....	7	3	3	22	1	..	..	2	3	15
Cervical	1	....	..	..	..	..	..	..	..	..	1	1
Not diagnosed as to type	36	13	1	5	5	7	1	3	2	..	2	16
Total number of cases	194	47	11	23	40	45	13	6	6	3	7	70
Maternal deaths	....	....	....	....	4	1	1	..	..	..	6	....
Infant deaths	....	18	10	10	16	7	2	2	2	3	..	70

One case died undelivered.

bag, 45 by cesarean section, 13 by rupture of membranes, 6 by forceps, 6 by packing, and 3 by hysterectomy. Some of the above methods of treatment were in combinations, such as packing until dilatation and then inserting a bag, or insertion of bag, and version and extraction after complete dilatation. However, for purposes of this paper, the most prominent feature of the delivery was used for statistics.

In the second series, maternal deaths occurred seven times. One patient died of surgical shock after section, one died after rupture of membranes due to puerperal sepsis following a retained placenta, one died undelivered, one of postpartum hemorrhage, one of eclamptic toxemia, one due to puerperal sepsis, and one of shock due to loss of blood. The total maternal mortality was 3 per cent, and the gross infant mortality 36 per cent.

The types of placenta praevia represented by this group were (see Chart 2) : marginal, 94 cases; partial or lateral, 25 cases; central or total, 38 cases; cervical, 1 case; and 36 cases were not diagnosed as to type. The same chart also shows the methods of treatment for the various types of placenta praevia, and the number of deaths in each type and for each method of treatment.

Of the 194 cases studied, forty-five were delivered by cesarean section, and 149 by older and more conservative methods. The cases delivered by section showed a maternal mortality of 2.2 per cent, and a gross infant mortality of 15.5 per cent; the cases delivered by other methods showed a maternal mortality of 4 per cent and an infant mortality of 42.2 per cent.

Bill of Cleveland, in a series of 104 cases, 78 per cent of which were treated by cesarean section, shows a maternal mortality of 1.92 per cent and an infant mortality of 30.76 per cent. Kellog, at the Boston Lying-In Hospital, in analyzing 151 cases treated by insertion of a bag, and Braxton Hicks version and extraction, found 8.6 per cent maternal mortality and 54 per cent gross fetal mortality; while the same author in a smaller series of cases treated by section found a maternal mortality of 3.6 per cent and an infant mortality of 22.7 per cent.

Between the years 1927 and 1931 the Chicago Lying-In Hospital reports a series of seventy-six cases, 30.4 per cent of which were treated by cesarean section, with no maternal deaths and a gross infant mortality of 41 per cent. The department of obstetrics and gynecology of the University of Chicago, in a series of sixty-three cases from 1931 to 1934, 54 per cent of which were delivered by section, reports no maternal deaths and 22.2 per cent gross infant mortality.

The decrease in both maternal and infant mortality in our second series of cases is no doubt due to: First, the better education of the mothers in the value of prenatal care; second, the recognition by the doctors of the potential gravity of even the slightest vaginal bleeding; third, the prompt initiation of proper and adequate treatment; fourth, the judicious and frequent use of the supporting measures, such as transfusion before and after delivery, and proper intravenous medication; and, lastly, the use of cesarean section

CHART 3.—*Maternal and Infant Mortality (Cesarean Section and Other Methods)*

	1925-1929		1929-1934	
	Cesarean Section	Other Methods	Cesarean Section	Other Methods
Per cent maternal deaths.	4.7%	5.9%	2.2%	4%
Per cent infant deaths.	24%	68%	15.5%	42.2%

as a method of choice in most cases of placenta praevia, regardless of type, rather than as a measuse of last resort which will and has decreased both the maternal and infant mortality.

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DISCUSSION

THOMAS F. WIER, M. D. (911 Medico-Dental Building, San Diego).—County and city hospitals are considered by many physicians dumping grounds for incurables, or places to send emergency patients to die. The report of Doctors Leon J. Tiber and J. L. Goldenberg of Los Angeles shows excellent results, as treated in such institutions. Also that we are saving more mothers and infants by use of the cesarean section. It would be interesting to know what type of placenta praevia were sectioned, and how many of them were transfused before and after operation. Were the cesarean sections of the low cervical type? Were they packed? Perhaps the low-flap type of section has contributed very much in lowering the maternal and fetal mortality. Most of the public institutions are not prepared with donors who may be available for emergencies. If the physicians give their time and services gratis to the public, why could not the institutions require the healthy ones to be typed and be ready themselves to render service to their fellow man?

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HENRY A. STEPHENSON, M. D. (490 Post Street, San Francisco).—The authors have given us an enlightening discussion on a most difficult problem in obstetrics. Comparison of the two periods shows a marked improvement in mortality of both mother and baby in the second period. Comparison of the figures shows a much more conservative type of treatment in the second period, in that there was a much higher percentage of spontaneous births. Version and extraction did not prove so popular in the second period. We agree with the authors, as brought out by the authors in the latter part of their paper, that in certain well-selected cases cesarean section does give a much better result for both mother and baby. Certainly, fetal mortality is very greatly reduced when cesarean section is employed, and is probably the most forceful argument in favor of this procedure.

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E. M. LAZARD, M. D. (1930 Wilshire Boulevard, Los Angeles).—The statistical review of the cases of placenta praevia on our services at the Los Angeles General Hospital from 1925 to 1934, by Doctors Tiber and Goldenberg, is of interest as showing the apparent greater safety of cesarean section in the treatment of these conditions than the other more strictly obstetrical methods.

This is also in accord with the results quoted from other clinics. However, in evaluating these results, one must take into consideration the many factors which should influence the choice of method in any given case. Undoubtedly, with both mother and baby in good condition, and sufficient findings to warrant the diagnosis of placenta praevia, section, together with adequate supportive treatment, offers the best results for both mother and baby.

The proper supportive treatment (intravenous gum acacia and blood transfusions, where indicated) should be emphasized.

In the first series of sixty-nine cases with a mortality of 6.9 per cent, there were twenty-seven cases of version and extraction with a mortality of 11 per cent, and twenty-one sections with a mortality of 4.7 per cent. The versions and extractions are divided into the Braxton-Hicks version and extraction, and "version and extraction."

It would be interesting to know how soon after the Braxton-Hicks versions, which presumably were done through an incompletely dilated os, the extraction was done. After a Braxton-Hicks version for placenta praevia, the labor should be allowed to proceed until complete dilatation before the extraction is completed. Also, in the "versions and extraction" how much dilatation was present?

The cause of death in one of these cases was rupture of the uterus; so, evidently, conditions were not favorable for a version and extraction.

The second series of 194 cases, from 1929 to 1934, show better results. In this series, thirty-four cases of version and extraction without any deaths; forty by insertion of bag; 45 by section, with one death; thirteen by rupture of membranes, with one death from puerperal sepsis; six by forceps; six by packing; and three by hysterectomy. In the case of the four other deaths, one undelivered, and one of postpartum hemorrhage, one eclamptic toxemia, and one from shock due to loss of blood; the method of treatment of the placenta praevia is not recorded. These figures show the fallacy of drawing any deductions from small series of cases, as pointed out by the authors, since we have thirty-four cases of version without mortality, as against twenty-seven cases of version and extraction with a mortality of 11 per cent in the first series.

The value of such statistical reviews of our work is apparent, but in evaluating them we should ever keep in mind the numerous factors which need to be considered. Our final conclusion from this review must be that in the treatment of placenta praevia. Cesarean section should have a very important place; but that, before deciding on any method treatment, all factors must be taken into consideration and the other methods, such as the pack, the bag, and version, all have their definite place, and, lastly and probably most important, that proper supportive treatment by intravenous medication and blood transfusion should be used where indicated, whatever the method of delivery.

PUBLIC HEALTH SIGNIFICANCE OF THE DIETARY HABITS OF PEOPLE ON RELIEF*

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THERE are now about twenty million people in the United States on the active relief roll. Most of these have appeared on the "charity" list since the winter of 1930. This increase includes people from all walks of life: those who have been drifters and were used to the rigors of scanty living conditions, others whose living conditions were always borderline, and those who were accustomed to the surroundings and habits which we associate with sedentary living. These people present a public-health problem of tremendous significance. They must be provided with a plan of living that is practical to the administration and economically possible with the available funds. This is, indeed, a matter of great complexity.

SOCIAL WELFARE SUPERVISION BECAME A BIG BUSINESS

The small group of trained social workers who were devoting their lives to problems of local significance a few years ago, suddenly found them-

* From the Central Medical Bureau.